

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number  
**WO 2004/055852 A3**

(51) International Patent Classification<sup>7</sup>: **H01J 9/02,**  
G03F 7/00, H01J 1/304

MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
**PCT/IB2003/005170**

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(22) International Filing Date:  
12 November 2003 (12.11.2003)

**Declaration under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

(25) Filing Language:  
English

**Published:**

— *with international search report*

(26) Publication Language:  
English

(88) Date of publication of the international search report:  
21 October 2004

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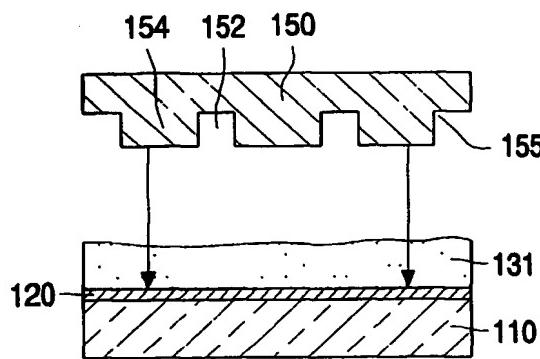
*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

(54) Title: FIELD EMISSION DEVICE, AND METHOD OF MANUFACTURING SUCH A DEVICE



(57) Abstract: A field emission device (100) is provided with a cathode electrode (120) and a gate electrode (140). Between these electrodes, a patterned dielectric layer (130) is provided. According to the invention, this dielectric layer (130) is manufactured from a liquid precursor material (131) which is patterned by means of a liquid embossing step, i.e. engaging a patterned stamp (150) with the liquid material (131). After removing the stamp (150), the liquid material is cured to form the patterned dielectric layer (130). Preferably, in a subsequent manufacturing step, the cathode electrode (120) or the gate electrode (140) is formed over the patterned dielectric layer (130) in a self-aligned way.

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/05170

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H01J9/02 G03F7/00 H01J1/304

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01J G03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/185949 A1 (YANIV ZVI ET AL) 12 December 2002 (2002-12-12)	1-6, 9
X	figures 2, 4 and 5; paragraphs '0001!, '0012! - '0016!, '0018! ----- WO 01/20402 A (MASSACHUSETTS INST TECHNOLOGY) 22 March 2001 (2001-03-22) page 2, line 9 - page 3, line 10; page 4, lines 2-11; page 8, line 11 - page 12, line 12; page 24, line 23 - page 26, line 8; figures 3, 10 ----- -/-	7, 8, 10-12
Y		1-6

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the International search

14 July 2004

Date of mailing of the International search report

21/07/2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/05170

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	BULTHAUP C A ET AL: "ALL-ADDITIVE FABRICATION OF INORGANIC LOGIC ELEMENTS BY LIQUID EMBOSsing" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS, NEW YORK, US, vol. 79, no. 10, 3 September 2001 (2001-09-03), pages 1525-1527, XP001083261 ISSN: 0003-6951 page 1525, column 1 - page 1526, column 1; page 1527, column 2; figure 1 -----	1-6
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Y	US 5 448 132 A (KOMATSU HIROSHI) 5 September 1995 (1995-09-05) column 2, line 20 - line 33; figure 2B -----	9
A	WO 02/093258 A (ELMICRON AG ; SCHMIDT WALTER (CH); STEIERT PHILIPPE (CH)) 21 November 2002 (2002-11-21) page 12, line 9 - page 13, line 13; figures 7,8 -----	9

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PCT/IB 03/05170

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